

## ABSTRACT

A manufacturing process of memory module with direct die-attachment is provided to integrate the process of packaging, module assembling and testing. When a plurality of memory chips are singulated from a wafer, a determined amount of the memory chips are directly mounted to a module substrate, and electrically connected to gold fingers of the module substrate. The module substrate mounting the memory chips is loaded in a memory module tester. The memory chips are tested to verify their electrical performance by contacting the gold fingers, and then the bad ones are repaired or replaced before packaging the memory chips. The manufacturing process of memory module with direct die-attachment can reduce the investment of testers and also the cost of testing.